



Vexations blanches

ERIK SATIE
Stefan Bartling



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tuning to naturals

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Stefan Bartling (2011)

1) Original by ERIK SATIE

deviation in cents to the tuning below

THÈME

This musical score shows three staves (treble, middle, and bass clef) with various notes and accidentals. Cent deviations are indicated by numbers above or below notes. A vertical dashed line separates the first and second halves of the piece. The deviations are as follows:

Staff	Measure	Deviation (cents)
Treble	1	+80
	2	-8, -20
	3	-4, -135
	4	-20, -8, -22, -135
	5	+80
	6	+80
	7	+80
	8	+78
	9	-4, -4
	10	-22, -106, -122
	11	-118
	12	+98
Middle	1	+98
	2	-22, -106, -122
	3	-118
	4	+82, +80, +182
	5	-18, -118
	6	-122
	7	0, +182, +180
	8	-104, -118, -106, -106
	9	+80
	10	+80
	11	+80
	12	+78
Bass	1	+82
	2	-6, -22, -106
	3	-102, -4, -2, -6, -102
	4	-106
	5	+96
	6	+14, +96
	7	+94
	8	+82
	9	+96
	10	+14, +96
	11	+14, +96
	12	+94

2) Tuned version by Stefan Bartling (2011)

all accidentals of the original are set to naturals
then tuned in Just Intonation ratios (n:d)

frequencies:
 $1/1 * 440 = 440.0$ Hz
 $8/9 * 440 = 391.111$ Hz

This musical score shows three staves with Just Intonation ratios (n:d) written above notes and cent deviations below notes. A vertical dashed line separates the first and second halves of the piece. The ratios and deviations are as follows:

Staff	Measure	Ratio (n:d)	Deviation (cents)	
Treble	1	40:27	-20	
	2	128:81	-8, -20	
	3	16:9, 14:9	-4, -35	
	4	40:27	-20, -8, -22, -35, -20	
	5	160:81	-20	
	6	14:9, 40:27, 40:27	-2, -2, -20, -35, -22	
	7	4:3, 4:3	-4, -4	
	8	40:27	-4, -4	
	9	14:9, 16:9, 16:9	-4, -4	
	10	80:81	-22	
	11	32:27, 80:81, 4:3	-6, -22	
	12	10:9, 10:9, 10:9, 40:27, 10:9, 10:9, 80:81	-2, -18, -18, -18, -20, -18, -18, -22	
Middle	1	80:81	-22	
	2	32:27, 80:81	-6, -22	
	3	4:3, 10:9, 10:9, 10:9, 40:27	-18, -18, -18, -20, -18, -18	
	4	80:81	-22	
	5	1:1, 8:9, 10:9, 10:9, 40:27	-4, -18, -18, -20	
	6	32:27, 32:27	-6, -6	
	7	20:27, 64:81, 20:27	-20, -8, -20, -4, -35	
	8	8:9, 7:9, 20:27, 64:81	-20, -8, -22, -35, -20	
	9	80:81, 7:9, 20:27, 20:27	-20, -20	
	10	2:3, 2:3, 20:27, 7:9, 80:81, 8:9, 8:9	-2, -2, -20, -35, -22, -4, -4	
	Bass	1	16:27	-6
		2	40:81	-22
3		16:27, 5:9, 2:3, 4:9, 2:3, 16:27, 2:3, 4:9	-6, -18, -2, -4, -2, -6, -2, -4	
4		16:27	-6	
5		2:5, 5:9, 4:9, 2:3, 16:27, 20:27, 20:27	+14, -18, -4, -2, -6, -20, -20	
6		16:27	-6	
7		40:81	-22	
8		16:27, 5:9, 2:3, 4:9, 2:3, 16:27, 2:3, 4:9	-6, -18, -4, -2, -6, -2, -4	
9		16:27	-6	
10		2:5, 5:9, 4:9, 2:3, 16:27, 20:27, 20:27	+14, -18, -4, -2, -6, -20, -20	
11		16:27	-6	
12		40:81	-22	

3) An other verison: play only white keys like above in tempered tuning